

**ABSTRACT**

The present invention relates to novel  
cytoplasmic tyrosine kinases isolated from  
megakaryocytes (megakaryocyte kinases or MKKs) which  
5 are involved in cellular signal transduction pathways  
and to the use of these novel proteins in the  
diagnosis and treatment of disease.

The present invention further relates to specific  
megakaryocyte kinases, designated MKK1, MKK2 and MKK3,  
10 and their use as diagnostic and therapeutic agents.

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